



RifleHunter 550 / RifleHunter 550 MAX-1 / Archer's Choice



Instruction Manual / Mode d'emploi



NIKON VISION CO., LTD.
Customer Service Department
3-25, Futaba 1-chome, Shirogawa-ku, Tokyo 142-0043, Japan
Tel: +81-3-3788-7699 Fax: +81-3-3788-7698

Printed in China (185K)/1E

Laser Rangefinder

Thank you for purchasing the Nikon RifleHunter / Archer's Choice.

This high-spec laser rangefinder features a new angle measurement function in addition to the existing linear distance measurement function for enhanced enjoyment of sports and other outdoor applications. (The Nikon RifleHunter / Archer's Choice is also able to measure the horizontal distance to a target.)

Please observe the following guidelines strictly so you can use the equipment properly and avoid potentially hazardous problems. Before using this product, read thoroughly the "SAFETY PRECAUTIONS" and instructions on correct usage accompanying the product.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Keep this manual within reach for easy reference.

- Specifications and design are subject to change without notice.
- No reproduction in any form of this manual, in whole or in part (except for brief quotation in critical articles or reviews), may be made without written authorization from NIKON VISION CO., LTD.

Key Features

- Linear distance measurement range: 10-500 meters/11-550 yards (RifleHunter) 4.5-91.5 meters/5-100 yards (Archer's Choice)
- Distance measurement display step: (Linear Distance) 0.5 meter/yard (measurement distance is less than 100 meters/yards) 1.0 meter/yard (measurement distance is 100 meters/yards or farther) (Horizontal Distance) 0.2 meter/yard (measurement distance is less than 100 meters/yards) 1.0 meter/yard (measurement distance is 100 meters/yards or farther)
- Easy-to-aim 6x optical observation system
- Quantifies the horizontal distance to the target in relation to the rangefinder's level by measuring linear distance and angle.
- The results are displayed on internal LCD panel.
- Target Priority Switch System allows you to easily match the measuring situation. (RifleHunter only)
- Archer's Choice is First Target Priority.
- Waterproof design (NOT designed for underwater usage)
- Invisible/Eyesafe IEC Class 1M Laser
- 8-second results display
- Compact, lightweight, ergonomic design
- Automatic shut-off (after approx. 8 sec. unattended)
- Default to "Last Use" settings
- 20-second continuous measuring function

The Nikon RifleHunter / Archer's Choice emits invisible, eyesafe, infrared energy pulses that reflect off the selected target back to its optical receiver. Sophisticated precision charge circuitry is used to instantaneously calculate distances, by measuring the time it takes for each pulse to travel from the rangefinder to the target and back. Laser reflectivity and measurement results may vary according to climatic and environmental conditions, the colour, surface finish, size, shape and other characteristics of the target.

The following factors ensure best range and accuracy:

- Nighttime use
- Cloudy weather
- Bright-coloured targets
- Targets with highly reflective surfaces
- Targets with shiny exteriors
- Large-size targets
- Shooting targets facing at 90 degrees

Measurement may result in inaccuracy or failure in the following cases:

- Slender or small target
- Target has diffusing reflective surface
- Target does not reflect the laser beam (glass, a mirror, etc.)
- Black target
- Target has varying depths
- In snow, rain or fog
- Target measured through glass
- Reflective surface measured from diagonal direction
- Moving target
- Obstacle moving in front of the target
- When targeting the surface of water

Composition

Body1	Neckstrap1
Soft case (CCN: RifleHunter, /CCV: Archer's Choice)1	Lithium battery (CR2)1

Nomenclature



- 1 Monocular objective lens/ Laser emission aperture
- 2 Laser detector aperture
- 3 MODE button
- 4 POWER button
- 5 6x monocular eyepiece
- 6 Eyecup/dioptre adjustment ring
- 7 Dioptre index
- 8 Strap eyelet
- 9 Battery chamber cover
- 10 Battery chamber cover "Open/Close" indication
- 11 Product number/explanatory label
- 12 Laser warning label

Internal Display

- Target focusing/Laser irradiate system
Aim at the target. Position the target at the center of the reticle.
Appears while the laser is being used for a measurement. (Remains present during single measurement. Blinks during continuous measurements.)



Warning: Do not look into the objective lenses when this mark is shown.

- Distance/measurement status display
Digitally indicates measured distance in meters/yards. Also indicates measuring status such as "Measurement in progress", "Measurement unsuccessful" or "Unable to measure."

- Examples of measurement results- (Distance) Display of results: (≥100m/yards) e.g. 234 meters = [234m] Display of results: (<100m/yards) e.g. 76.5 yards = [76.5 yd] [:] - Now measuring [---] - Failure to measure or unable to measure distance

- Display Units
[m] Indicates distance being measured in meters.
[YD] Indicates distance being measured in yards.
- Battery condition. (See "Changing Batteries")
- Display Modes
Linear distance mode
[No unit displayed] Measures linear distance to your target and displays the results.
Horizontal distance mode
[Ang] Calculates horizontal distance to your target by measuring the linear distance and angle, and displays the results.

- Target Priority mode (Archer's Choice doesn't have this mode.)
First Target Priority mode
[No unit displayed] Indicates when First Target Priority mode is set.
Distant Target Priority mode
[Dst] Indicates when Distant Target Priority mode is set.

Although the LCD was produced using the most advanced technology, it is impossible to eliminate dust completely. When using this product, the LCD is magnified by high magnification of the eyepiece lens and dust may appear as a defect. It will not, however, affect measurement accuracy.

Changing Batteries

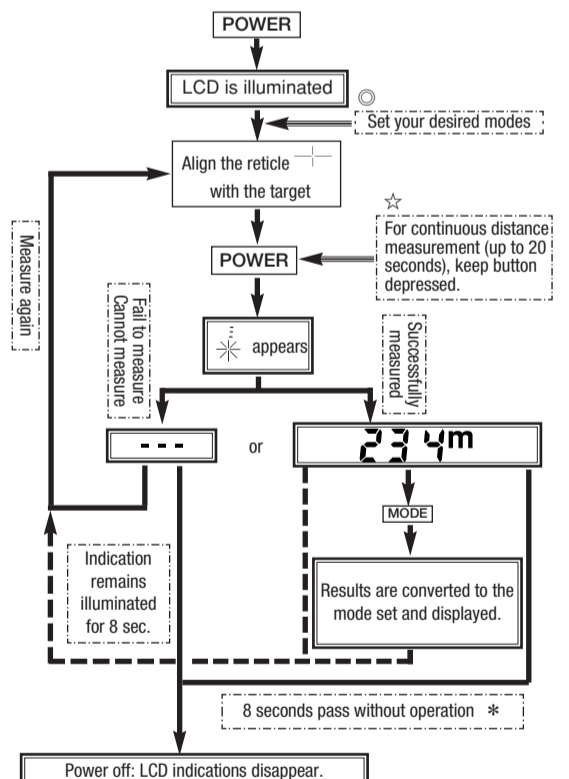
- Type of battery: 3V CR2 lithium battery
- Battery condition indicators
Battery has enough charge for use.
Battery charge is getting low.
Battery charge is low and battery should be replaced.
Battery is exhausted and should be replaced.
Flashing in the LCD indicates that the battery should be replaced.

- Open the battery chamber cover
Using the ball of the thumb or a coin in the recessed part of the battery chamber cover, rotate the cover following the Open/Close arrow indicator. It may not open easily due to its rubber packing for water resistance.
 - Replace the old battery with a new one
Install new battery with the [+] and [-] correctly positioned following the "Battery installation" indication seal in the battery chamber. (Insert battery positioning the [+] pole towards the inside of the chamber.) [The RifleHunter / Archer's Choice will not operate if the battery is installed incorrectly.]
 - Close the battery chamber cover
Align the Open/Close indicator with the white dot and insert the battery chamber cover. Using the ball of the thumb or a coin, turn the cover in the opposite direction to the arrow indicator. It may not close easily due to the rubber packing for water resistance, but continue to turn it all the way until it stops. Confirm that the cover is securely closed.
- Battery life
Continuous operation: Approx. 10,000 times (at 20°C)
Target focusing, measurement, and automatic power off are included in a single cycle. This figure may differ according to temperature, and other factors such as target shape, colour, etc.
* The Nikon RifleHunter / Archer's Choice come with a 3V CR2 lithium battery. However, due to natural electric discharge, the life of the battery will likely be shorter than that noted above.
Replace battery if the Nikon RifleHunter / Archer's Choice is ever submerged in water or if water enters in the battery chamber.

Operational Summary

Caution—use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure

- Install a battery in the battery chamber. (See "Changing Batteries")
- Rubber eyepiece cup
Eyeglass wearers: Roll up the rubber eyepiece cup and use. Non-eyeglass wearers: No need to roll up the rubber eyepiece cup for use.
- Diopter adjustment
Adjust diopter to obtain a clear image in the LCD.
First, rotate the diopter adjustment ring counterclockwise until it comes to a complete stop. Next, turn on the power to activate the LCD when you look through the Nikon RifleHunter / Archer's Choice. Rotate the diopter adjustment ring clockwise until the display comes into focus. If the diopter is not adjusted to correspond to your eyesight, you may not be able to clearly focus your subject.
- Measuring
Note: Depressing and holding down the POWER button causes all symbols to be displayed in the internal LCD panel. After you remove your finger from the POWER button, the last-used setting is displayed. (If you briefly press the POWER button then remove your finger, the LCD panel may display the last-used setting without displaying all of the symbols. This is not a malfunction or other problem.)
Before measuring, be sure to confirm settings, such as unit, measurement/display mode and priority mode.
See the relevant mode section in this manual for setting.



* Power turns off 8 seconds after the last operation.

☆ [Continuous measurement mode]
Depressing the POWER button allows you to perform continuous measurement for 20 seconds.

<> Blinks while performing measurements.

5. Selecting display unit (Factory default setting is yard.)



- Confirm the internal LCD panel is on.
- Press and hold the MODE button for more than two seconds.
- When display unit has switched, release the MODE button.
- Repeat steps 2 and 3 until your desired mode is displayed.
- When you have completed setting, results will be converted and displayed in the your selected measurement unit.

6. Switching measurement/display modes

(Factory default setting is Horizontal distance measurement mode.)



- Confirm the internal LCD panel is on.
- Press MODE button within 0.5 seconds.
- When mode has switched, release the button.
- Repeat steps 2 and 3 until your desired mode is displayed.
- Switching the mode after measurement converts the results to the new mode.
- After the mode is set, measurements are performed in the new mode.

7. Switching Target Priority modes (RifleHunter only)

(Factory default setting is Distant Target Priority mode.)



- LCD panel should be on.
- Press and hold MODE button, then depress and hold POWER button within 0.5 second.
Note) If the POWER button is not pressed within 0.5 second, the display unit (m/yard/ft) will be switched.
- Continue to press and hold both buttons (more than 2 seconds) until First Target Priority mode and Distant Target Priority mode are switched.
Note: If buttons are not pressed in the correct order, switching will not take place.
Note: If switching fails to take place, repeat 2.
- Release buttons.

[Deciding which Target Priority to use]

When obtaining different results from a single measuring operation, the Nikon RifleHunter will display the distance to the farthest target on the LCD panel when using Distant Target Priority mode, while First Target Priority mode will show the range to the nearest target.

Archer's Choice takes First Target Priority Distant Display System.

ex.) When measuring a tree standing in front of a house;

	Tree	Fence	House
Distance to Target	115m	123m	128m

"115m" (distance to the tree) will be displayed in First Target Priority mode, and "128m" (distance to the house) in Distant Target Priority mode. First Target Priority mode, for example, has applications for golf, while Distant Target Priority is useful when hunting in heavily wooded areas.

8. Low battery indication

Flashing indicates that the battery charge is low and battery should be replaced. (See "Changing Battery")

Specifications

(RifleHunter 550 / RifleHunter 550 MAX-1)	
Measurement mode display	Linear distance : No sign Horizontal distance : Ang
Measured range	10-500 meters/11-550 yards
Distance indication step	No sign (Linear distance): 0.5 meter/yard (<100 meters/yards) 1.0 meter/yard (≥100 meters/yards) Ang (Horizontal distance): 0.2 meter/yard (<100 meters/yards) 1.0 meter/yard (≥100 meters/yards)
Target System	Target Priority Switch System
Measuring system	Single mode/Continuous mode

(Archer's Choice)

Measurement mode display	Linear distance : No sign Horizontal distance : Ang
Measured range	4.5-91.5 meters/5-100 yards
Distance indication step	No sign (Linear distance): 0.5 meter/yard (<100 meters/yards) 1.0 meter/yard (≥100 meters/yards) Ang (Horizontal distance): 0.2 meter/yard (<100 meters/yards) 1.0 meter/yard (≥100 meters/yards)
Target System	First Target Priority System
Measuring system	Single mode/Continuous mode

(RifleHunter 550 / RifleHunter 550 MAX-1 / Archer's Choice)

Type	Roof-prism monocular
Magnification	6x
Effective diameter of objective lens	ø21mm
Angular field of view (real)	6.0°
Eye relief	18mm
Exit pupil	ø3.5mm
Dioptre adjustment	±4m ⁻¹
Others	
Operating temperature	-10° — +50°
Power source	CR2 lithium battery x 1, 3V DC
Dimensions (W x H x D)	130×37×69 mm
Weight	Approx. 180g (without battery)
Structure	Body: Waterproof (maximum depth of 1 meter for up to 10 minutes)* (Battery chamber: Water resistant**)
Safety	Class 1M Laser product (IEC 60825-1:2001) FCC Part15 subpart B Class B CE, EMC directive, c-tick, WEEE

Class	IEC Class 1M
Wavelength	870 nm
Pulse duration	14 ns
Output	15W
Beam divergence	Vertical: 5° — 8°, Horizontal: 25° — 36°
Operating humidity	80% RH (without dew condensation)

* Waterproof models

The Nikon RifleHunter / Archer's Choice is waterproof, and will suffer no damage to the optical system if submerged or dropped in water to a maximum depth of 1 meter for up to 10 minutes.

The Nikon RifleHunter / Archer's Choice offers the following advantages:

- Can be used in conditions of high humidity, dust and rain without risk of damage.
- Nitrogen-filled design makes it resistant to condensation and mold.
- Observe the following when using the Nikon RifleHunter / Archer's Choice
 - As the unit does not have a perfectly sealed structure, it should not be operated nor held in running water.
 - Any moisture should be wiped off before adjusting movable parts (focusing knob, eyepiece, etc.) of the Nikon RifleHunter / Archer's Choice to prevent damage and for safety reasons.

To keep your Nikon RifleHunter / Archer's Choice in excellent condition, Nikon Vision recommends regular servicing by an authorized dealer.

** The battery chamber is water resistant, not waterproof. Water may enter the device if the Nikon RifleHunter / Archer's Choice is submerged in water. If water enters the battery chamber, wipe out any moisture and allow time for the chamber to dry.

CARE AND MAINTENANCE

- Lenses
 - When removing dust on the lens surface, use a soft oil-free brush.
 - When removing stains or smudges like fingerprints from the lens surface, wipe the lenses very gently with a soft clean cotton cloth or quality oil-free lens tissue.
 - Use a small quantity of pure alcohol (not denatured) to wipe stubborn smudges. Do not use velvet cloth or ordinary tissue, as it may scratch the lens surface. Once the cloth has been used for cleaning the body, it should not be used again for the lens surface.
- Main body
 - Clean the body surface with a soft, clean cloth and a dry cloth. Do not use benzene, thinner, or other organic agents because they may cause discolouration or rubber degeneration.

Troubleshooting/Repair

If your Nikon RifleHunter / Archer's Choice should require repair, please contact your local dealer for details regarding where to send it. Before doing so, you are advised to consult the Troubleshooting Table below.

Symptom	Check Points
Unit does not turn on — LCD fails to illuminate	• Depress POWER button. • Check and replace batteries if necessary.
Target range cannot be obtained	• Be sure that nothing, such as your hand or finger, is blocking the laser emission aperture and laser detector. • Be sure that the laser emission aperture and laser detector are clean. Clean them if necessary. • Be sure that the target shape and condition is appropriate to reflect the laser beam. • Replace battery.
[- -] ("Cannot measure") appears	• Be sure to hold the unit steady while depressing the POWER button. • Be sure the target is within measuring range (10 - 500m/11 - 550 yards: RifleHunter, 4.5 - 91.5m/5 - 100 yards: Archer's Choice)
Closer target cannot be measured	• Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter / Archer's Choice and the target.
Target beyond a certain distance cannot be measured	• Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter / Archer's Choice and the target.
Measurement result is unstable	• Replace battery. • Be sure that the target shape and condition is appropriate to reflect the laser beam. • Be sure to hold the unit steady while depressing the POWER button. • Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter / Archer's Choice and the target.
Incorrect result is displayed	• Replace battery. • Be sure that the target shape and condition is appropriate to reflect the laser beam. • Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter / Archer's Choice and the target.

If problems persist after consulting the Troubleshooting Table, please contact your local dealer to check/repair the Nikon RifleHunter / Archer's Choice. Never let anyone than the official representative of the product manufacturer check or repair the Nikon RifleHunter / Archer's Choice. Failure to follow this instruction could result in injury, or damage to the product.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Consult the dealer or an experienced radio/TV technician for help.

Do not use the Nikon RifleHunter / Archer's Choice for purposes beyond the limits of its stated accuracy.

CAUTIONS BEFORE USE

Please observe the following guidelines strictly so you can use the equipment properly and avoid potentially hazardous problems. Before using this product, read thoroughly the "SAFETY AND OPERATION PRECAUTIONS" and instructions on correct usage accompanying the product. Keep this manual within reach for easy reference.

WARNING
This warning alerts you to the fact that any improper use ignoring the contents described herein can result in potential death or serious injury.

CAUTION
This indication alerts you to the fact that any improper use ignoring the contents described herein can result in potential injury or material loss.

SAFETY AND OPERATION PRECAUTIONS

- Warning
 - Never look directly at the laser beam or directly at the sun when using the Nikon RifleHunter / Archer's Choice.
 - Do not depress the POWER button while aiming with the eye or looking into the optics from the objective side.
 - Do not operate the unit with other additional optical elements, such as lenses or binoculars. Using an optical instrument together with the Nikon RifleHunter / Archer's Choice increases the danger of damaging the eyes.
 - Do not disassemble the Nikon RifleHunter / Archer's Choice. A product that has been disassembled is not guaranteed by the manufacturer.
 - When Nikon RifleHunter / Archer's Choice's body cover is damaged, or if it emits a strange sound due to dropping or for some other cause, immediately remove the battery and stop using.
- Cautions
 - When not using the Nikon RifleHunter / Archer's Choice, do not push the POWER button.
 - Do not leave the Nikon RifleHunter / Archer's Choice within the reach of small children.
 - Rain, water, sand and mud should be removed from the rangefinder body surface as soon as possible, using a soft, clean, dry cloth.
 - Although the Nikon RifleHunter / Archer's Choice is waterproof, it is not designed for use underwater.
 - Do not swing the Nikon RifleHunter / Archer's Choice by its strap. It may hit someone and cause injury.
 - Do not leave Nikon RifleHunter / Archer's Choice in an unstable place, as it may fall and cause injury, or damage the equipment.
 - Do not look through the Nikon RifleHunter / Archer's Choice while walking. You may walk into something and get hurt.
 - Do not leave the Nikon RifleHunter / Archer's Choice in a car on a hot or sunny day, or near heat-generating equipment. This may damage or negatively affect it.
 - Do not leave the Nikon RifleHunter / Archer's Choice in direct sunlight. Ultraviolet rays and excessive heat may negatively affect or even damage the unit.
 - When the Nikon RifleHunter / Archer's Choice is exposed to sudden changes in temperature, water condensation may occur on lens surfaces. Do not use the product until the condensation has evaporated.
 - Do not use alcohol for cleaning the main body.

- Do not leave the polyethylene bag used for packaging within the reach of small children.
- Be careful that small children do not inadvertently swallow the eyecup. If it does happen, consult a doctor immediately.
- If you use the rubber eyecup for a long period of time, you may suffer skin inflammation. If you develop any symptoms, consult a doctor immediately.
- When carrying the Nikon RifleHunter / Archer's Choice, store it in the soft case.
- If your Nikon RifleHunter / Archer's Choice should fail to operate correctly, discontinue use immediately and consult the Troubleshooting Table. If you are unable to fix the problem, contact your local dealer for instructions on where to send it for repair.

- Storage
 - Water condensation or mould may occur on the lens surface because of high humidity. Therefore, store the Nikon RifleHunter / Archer's Choice in a cool, dry place.
 - After use on a rainy day or at night, thoroughly dry it at room temperature, then store in a cool, dry place.
- NOTES ON LITHIUM BATTERY
 - If handled incorrectly, batteries may rupture and leak, corroding equipment and staining clothing. Be sure to observe the following:
 - Install batteries with the + and - poles positioned correctly.
 - Batteries should be removed when exhausted or during extended periods of non-use.
 - Always use the same brand of battery.
 - If battery fluid contacts eyes or skin, rinse well with water. If swallowed, consult a doctor immediately.
 - Do not short-circuit battery chamber terminals.
 - Do not carry batteries together with keys or coins in a pocket or bag. This may overheat and short-circuit batteries.
 - Do not put batteries in fire or water. Never disassemble batteries.
 - Do not charge batteries.
 - Do not subject stored batteries to extremes in temperature.
 - Do not subject batteries to strong vibrations or shock.

